SHARP

ENGLISH

ESPAÑOL

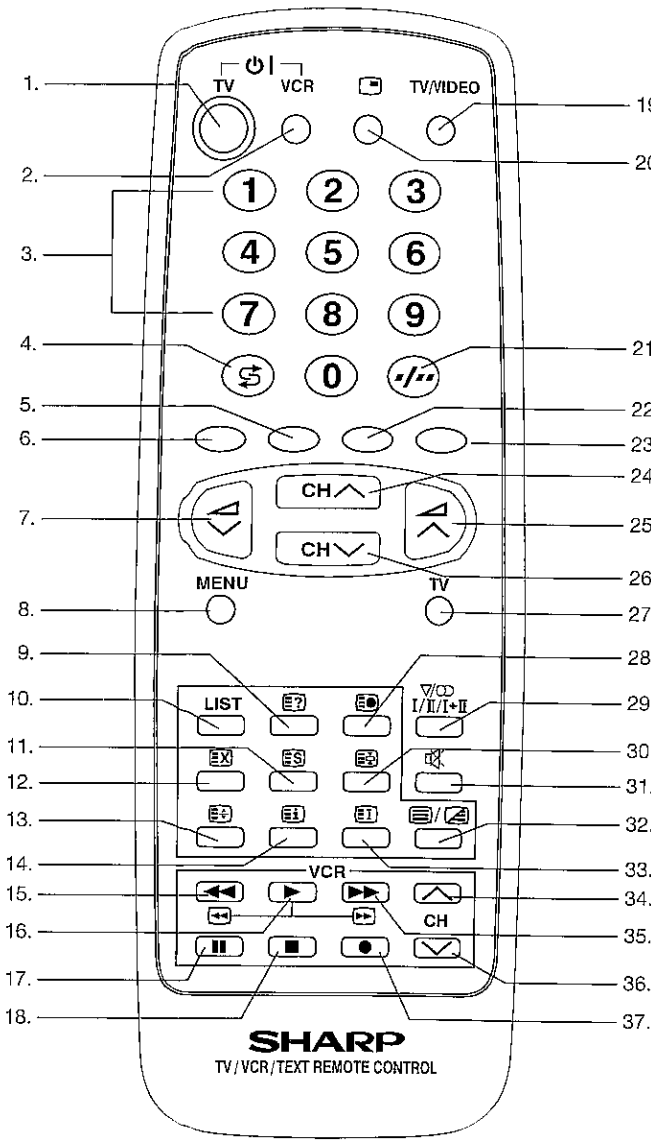
FRANÇAIS

NEDERLANDS

SVENSKA

COLOUR TELEVISION
TELEVISOR COLOR
TELEVISEUR COULEUR
KLEURENTELEVISIE
FÄRGTELEVISION

OPERATION MANUAL
MANUAL DE INSTRUCCIONES
MODE D'EMPLOI
BEDIENINGSHANDLEIDING
BRUKSANVISNING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VCR
TV/VIDEO
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LIST
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SHARP
TV/VCR/TEXT REMOTE CONTROL

ENGLISH

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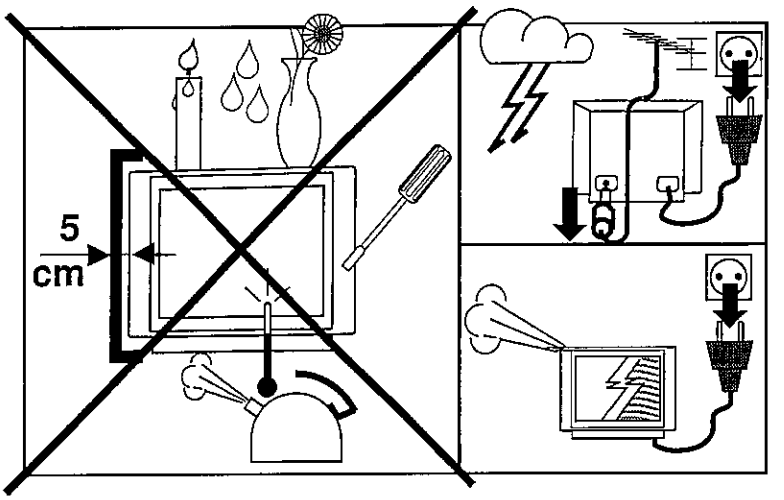
Dear SHARP Customers

Since 1924 «SHARP» consumer electronic products have established a worldwide reputation for unsurpassed quality and precision manufacturing techniques.
Your new SHARP Colour TV uses the very latest electronic circuitry and engineering advancements for the best possible performance. Given proper care, your new TV will provide many years of entertaining for the entire family.
Please read the following instructions before operating this set.

Safety precaution

This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

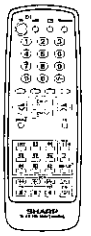
The 5 cm in the drawing indicates the minimum ventilation distance

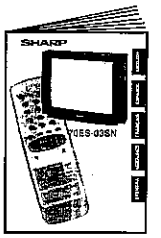


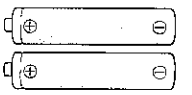
Feature list

- Auto Installation System
- ASS function (Auto Channel Sorting System)
- 99 Channel Programming System
- Cable and Hyperband
- Teletext
- OSD System (On Screen Display)
- Tint Control
- Stereo (IGR/NICAM)
- ON-OFF Timer
- 21pin Euro SCART Connector (RGB)
- 21pin Audio/Video Connector (AV-1)
- Headphone Terminal
- Blue Back Noise Mute Function

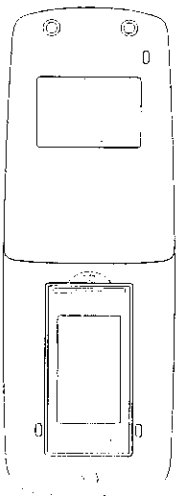
Accessories

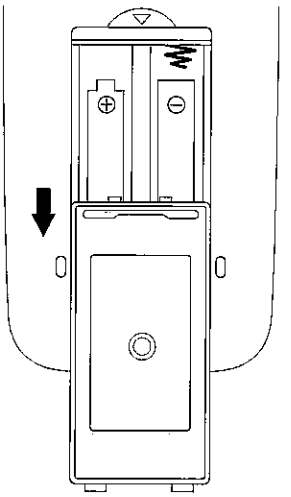






Remote Control Battery Installation

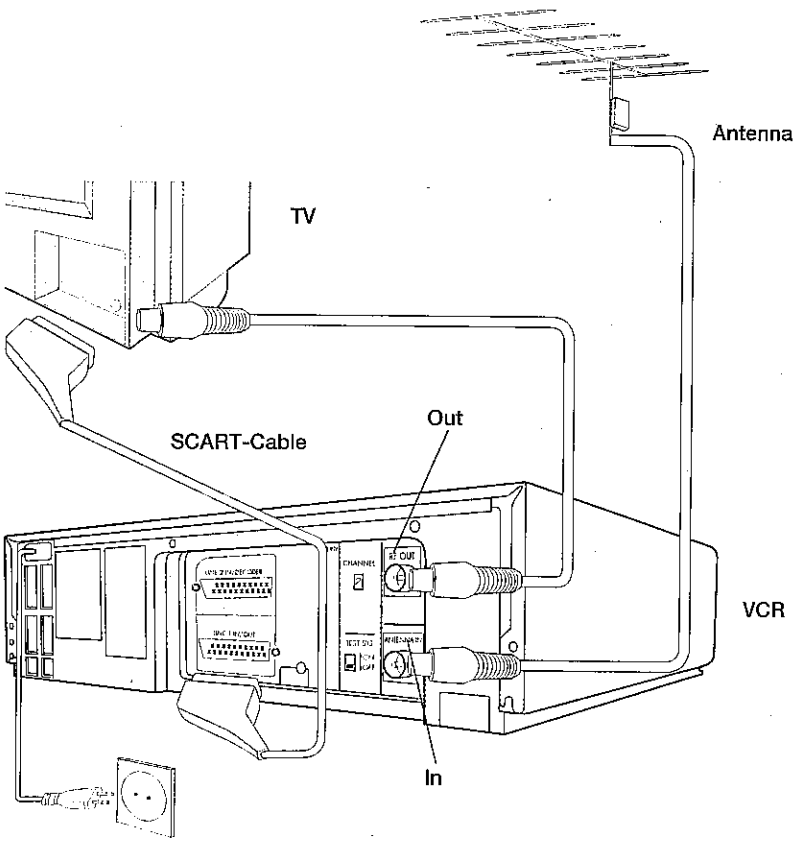




Installing the Batteries

1. Remove the cover and insert two «AA» or «UM-3» 1.5 V batteries as illustrated.
2. Position the positive and negative ends of the batteries as indicated.

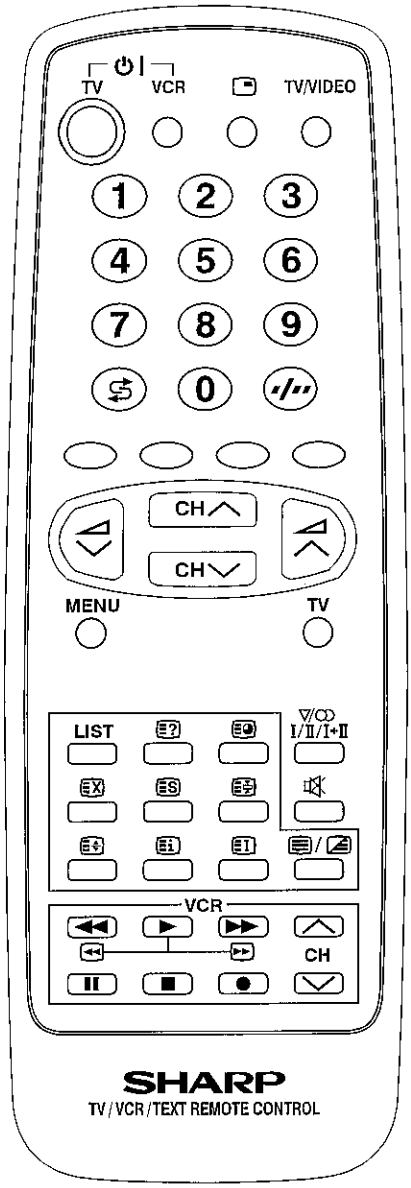
Antenna connections



Note: See page 24 for details of further connection possibilities.

Remote control

See together with the pull-down page of the cover.

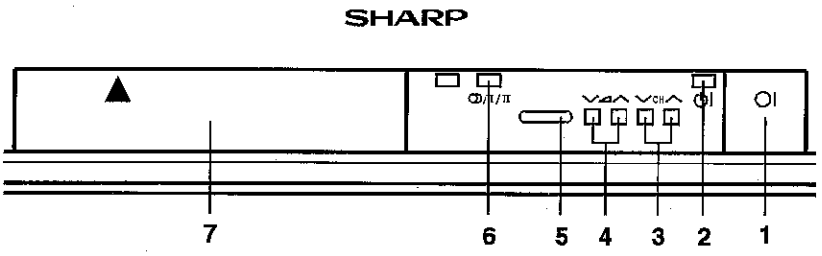


TV	1. Stand-by ON/OFF switch
Videorec.	2. Power ON/OFF switch (VCR)
TV	3. Digit buttons 0-9
	4. Flashback button
Teletext	5. Colour button (green)
	6. Colour button (red)
TV	7. Volume down/Cursor control left
	8. Menu button
Teletext	9. Reveal button
	10. List selector
	11. Store button
	12. Cancel button
	13. Top/Bottom/Full button
	14. Reset button
Videorec.	15. Rewind/picture search/reverse
	16. Play button
	17. Pause/Still button
	18. Stop button
TV	19. TV/VIDEO selector
	20. Channel Call button
	21. Single/Double entry
Teletext	22. Colour button (yellow)
	23. Colour button (cyan)
TV	24. Channel up/Cursor control up
	25. Volume up/Cursor control right
	26. Channel down/Cursor control down
	27. TV button
TV/Teletext	28. Time button
TV	29. Sound mode selector
Teletext	30. Hold button
TV	31. Sound Mute button
Teletext	32. Text/Mix button
	33. Index button
Videorec.	34. Channel up selector
	35. Fast forward/picture search/forward
	36. Channel down selector
	37. Record button

Controls & Terminals

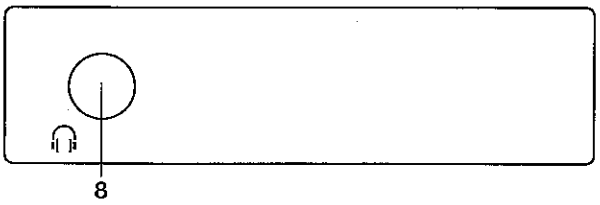
FRONT TV

1. Main Power On/Off Switch
2. Power Indicator
3. Program Selector (Up/Down)
4. Volume Buttons (Up/Down)
5. Remote Control Sensor
6. Sound Indicator
7. DOOR



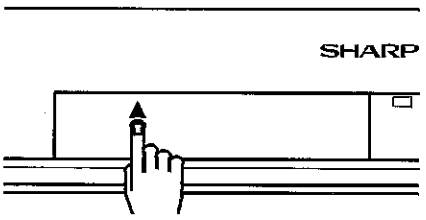
Behind the door

8. Headphone Socket (16-600 Ω), 3.5 mm ø Jack plug



HOW TO OPEN THE DOOR

Press the top of the door, opening it slightly hook your finger inside and pull open.



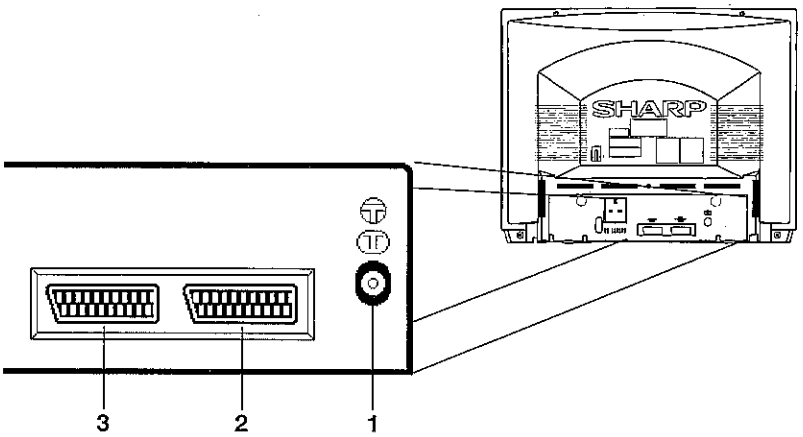
REAR TV

RF Input

1. Antenna terminal

21-pin In/Out

2. 21-pin Euro SCART (RGB)
3. 21-pin Audio/Video (AV-1)

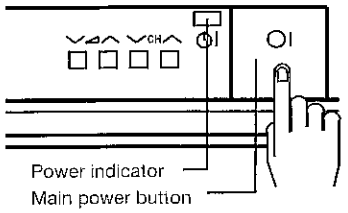


Auto Installation

Auto Installation System

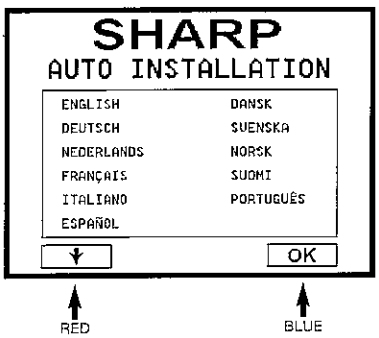
Your television set is provided with an Automatic Installation System which makes installation easier.

This new system is activated when you turn on the TV for the first time.



Procedure:

1. Connect the antenna jack in the antenna input terminal on the rear side of your TV set. Then connect the TV power cable to a 220~240 V system.
2. Press the main power button ⏻, on the right hand side of the TV set, and the AUTO INSTALLATION message will appear on the screen.
3. Put batteries into the remote control and follow the instructions on the screen.



The TV will go through the following steps Automatically and sequentially:

Language: To select the language of the menus ENGLISH (ENGLISH), DEUTSCH (GERMAN), NEDERLANDS (DUTCH), FRANÇAIS (FRENCH), ITALIANO (ITALIAN), ESPAÑOL (SPANISH), DANSK (DANISH), SVENSKA (SWEDISH), NORSK (NORWEGIAN), SUOMI (FINNISH) or PORTUGUÊS (PORTUGUESE).

Country: To select the country.

Automatic channel Sorting System (ASS): The TV set SEARCHES FOR FREQUENCIES, memorises the channels found and sorts them (according to technical criteria) from Pr 1 of the TV, to a maximum of 99 programmes.

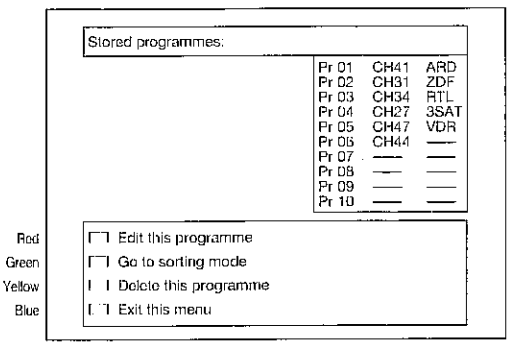
Editing: When the AUTOMATIC SEARCH has been completed, the list of memorised programmes appears. In this menu, you can change the order of the channels and change or give the channels a four letter name.

NOTE: You may not have to follow this procedure if it has already been done for you at the establishment where you purchased your TV. If this is the case, please go on to the section entitled «Switching ON».
If you need to repeat the AUTO INSTALLATION, read on page 16.- Auto Channel Preset...-

Stored programmes

When the TV has finished the automatic search, the «Stored programmes» menu will appear on screen with a list of the channels which have been memorised and a picture of the remote control with the available options:

a) Edit this programme → Red colour
b) Delete this programme → Yellow colour
c) Go to sorting mode → Green colour
d) Exit → Blue colour



With this options, you will be able to organise the real channels (CH**) Memorised in the TV programmes (Pr 01 ... Pr 99) and put them into your own preferred order.

a) **Edit this programme**

Select the programme that you want modify with channels up/down arrows, after that press the red button to edit. Use this option for giving a name made up of four digits to the channels or for changing the one which appears on some channels, in the following way:

a.1. Select the channel using the Cursor UP/DOWN buttons ▲/▼.

a.2. Press the RED button.

a.3. Press the Cursor UP button ▲ to change the first letter. Letters A to Z of the alphabet, a blank space and the numbers 0 to 9 will appear sequentially. Press the Cursor DOWN button ▼ to go backwards in the sequence.

a.4. Press the ◄/► buttons for changing the position of the cursor and the ▲/▼ buttons for changing the letters. When you have finished the fourth letter, press the ► button to quit the «CHANGE OF NAME» option.

b) **Delete this programme**

Use this option for cancelling programmes which are badly tuned or repeated. When the YELLOW button is pressed, the TV will ask for confirmation that you wish to cancel, and you must press the YELLOW button again. The channels (CH) that follow it on the list will automatically rearrange themselves by moving up one programme (Pr) place, to restore the space of the cancelled channel (CH).

c) **Go to sorting mode**

Use this option for sorting the programmes into the desired programme (Pr). With this option you can move the selected programme with the arrows ▲/▼ to the selected position.

Once the desired position is reached use again the GREEN button to return to a normal mode.

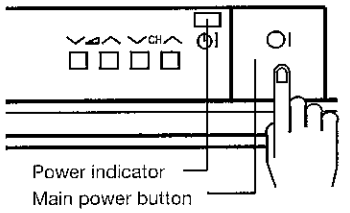
d) Exit

Use this option to quit the menu by pressing the BLUE button.

Switching on

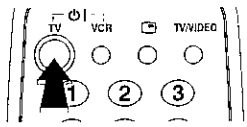
Power supply on/off button

When the main power button (O I) is pressed ON, the power indicator lights and your TV set enters: In Stand-by mode or Program Mode. This TV memorizes the Mode which has been memorized when it was switched OFF by main power button (O I).



On-Off/Stand-by button

When the TV is on Stand-by Mode, to turn ON the TV press the Stand-by button (⏻ I TV) of the remote control, or one of the four buttons on the TV (V◿/◺∧, VCH/◺∧). The TV will change from Stand-by Mode to Program Mode, the sound indicator will light a few moments and an image will appear on the screen. Press the Stand-by button (⏻ I TV) again and the TV will return to Stand-by Mode.



Blue back off timer

If noise appears in TV or VCR mode, the screen turns blue. The blue back off-timer is then engaged and will automatically switch the set to stand-by mode in 15 minutes.

Real Channel Number (terrestrial/cable TV Programmes)

Channel setting is mainly performed using the remote control. Please follow the instructions with the remote control in hand.
Television broadcasting stations have channel numbers assigned to them (real channel numbers). You can assign your own channel number to a real channel and store it in the programme channel memory.

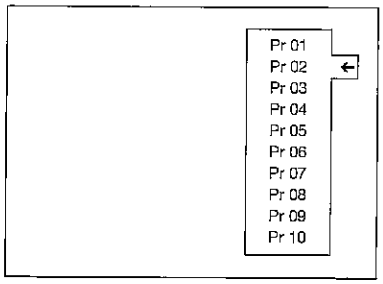
Corresponding Real Channel

	Station signals	Real Channel numbers	Especially available
V	E-2 ~ E-4	CH 02 ~ CH 04	
H	E-5 ~ E-12	CH 05 ~ CH 12	
F	A ~ H	CH 13 ~ CH 20	in Italy
UHF	E-21 ~ E-69	CH 21 ~ CH 69	
C	M1/S1 ~ M10/S10	CC 01 ~ CC 10	
	U1/S11 ~ U10/S20	CC 11 ~ CC 20	
A	S21 ~ S41	CC 21 ~ CC 41	
T	M1 ~ M7	CC 42 ~ CC 48	in Holland
	B1 ~ B7	CC 49 ~ CC 55	
V	S'1/S21 ~ S'5/S25	CH 75 ~ CH 79	in Switzerland

Operation (TV)

Channel Selection

Ⓐ Channel selector (V CH Λ) buttons
Select the programme channel number you want to see, using the channel selector buttons (CH V CH Λ).



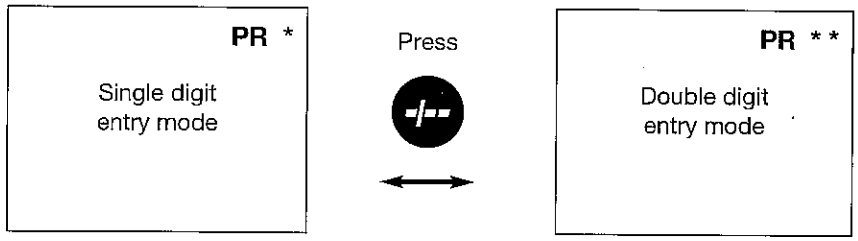
As you press these keys a list of channels appears.

Press the CH V /CH Λ again to select another channel.

Press the TV button to remove the screen.

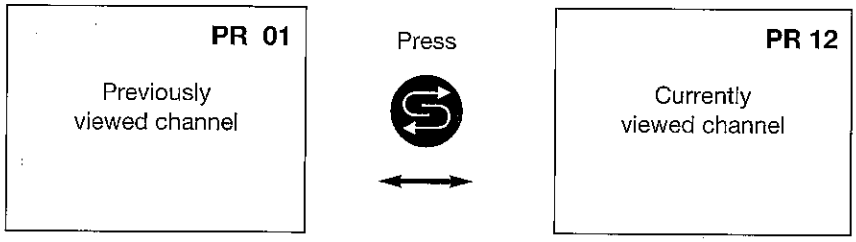
Note: The channels that are in SKIP mode cannot be seen with this buttons. Use numerical buttons to display these channels.

Ⓑ Single/Double entry selector (-/--)
This button selects between one or two digit channel number entry.



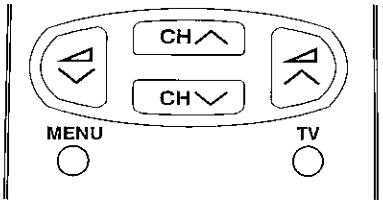
Ⓒ 0~9 Digit buttons
You can select channels by pressing the 0~9 digit buttons on the remote control.
(Single digit and double digit entry are available: refer to the Single/Double entry selector).

Ⓓ Flashback button (⇆)
Press this button to switch the currently-tuned channel to the previously-tuned channel. Press the button again to switch back to the currently-tuned channel.
This function is only available in programme channel selection mode.



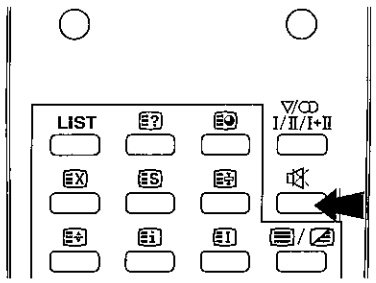
Audio Adjustments

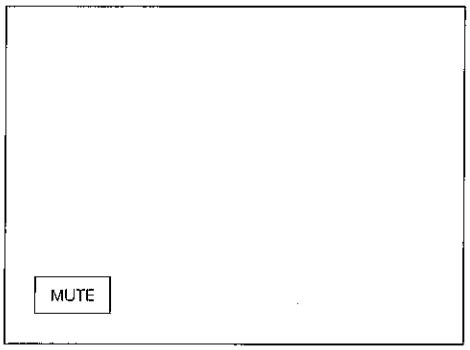
Ⓐ Loudspeakers Sound Volume (V ◿ Λ)
Adjust the sound volume using the V ◿ Λ buttons. Press the buttons to decrease/increase the sound level. The sound volume indicator appears on the screen.



Note: To adjust the headphones sound volume see the SOUND LEVELS menu on page 13.

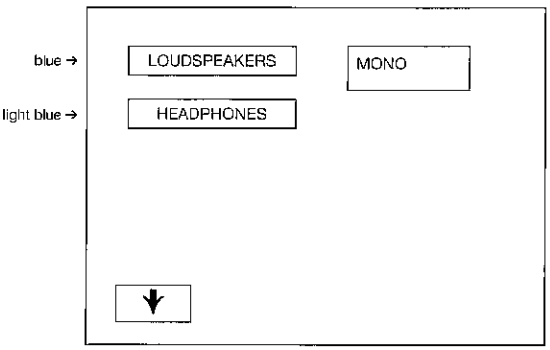
Ⓑ Sound mute button
Press the button to mute the sound. MUTE appear on the screen. Press the button again to turn the sound back on.





Ⓒ Sound mode selector button (▽/⊂⊃ I/II/I+II)
You can select a sound mode to the speakers and another sound mode to the headphones.

1. Press the Sound Mode Selector button (▽/⊂⊃ I/II/I+II) and the SOUND MODE menu will appear on the screen.
2. Press the Cursor UP/DOWN buttons ▲/▼ to select loudspeakers or headphones.
3. Press the Cursor LEFT/RIGHT button ◄/► to change the sound mode as indicated:



When the TV set is receiving a STEREO programme, the TV set selects STEREO automatically, and you can change:

In the SPEAKERS: STEREO ⟷ SOUND WIDE ⟷ MONO
In the HEADPHONES: STEREO ⟷ MONO

When the TV set is receiving a BILINGUAL programme, the TV set selects DUAL CHANNEL A automatically, and you can change:

In the SPEAKERS: → DUAL CHANNEL A ⟷ SIMULATED STEREO A ⟷ DUAL CHANNEL B ← ⟷ MONO ⟷ DUAL CHANNELS AB ⟷ SIMULATED STEREO B ←
In the HEADPHONES: DUAL CHANNEL A ⟷ DUAL CHANNEL B ⟷ DUAL CHANNELS AB ⟷ MONO

When the TV set is receiving a MONO programme, the TV set selects MONO automatically, and you can change:

In the SPEAKERS: MONO ⟷ SIMULATED STEREO
In the HEADPHONES: only MONO

4. Press the MENU button ● to clear the on-screen display.

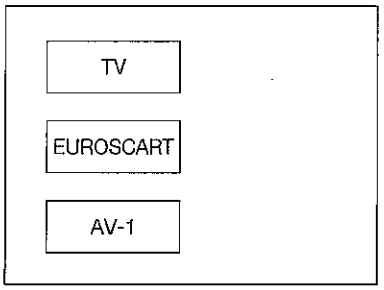
Sound Indicator: When the TV set is receiving a STEREO or BILINGUAL programme the Sound Indicator lights.

External source: When you are watching the TV-set through the Euro-SCART or AV-1 terminals, the Sound Mode Selector button is not operative.

Other Features

Ⓐ TV/Video selector (TV/VIDEO)
The signal source can be selected from each of the input terminals in this mode.

1. Press the TV/VIDEO selector button.
2. Press the Cursor UP/DOWN ▲/▼ buttons to select another signal source: TV, Euro-SCART or AV-1.
3. Press the TV/VIDEO button again to clear the on-screen display.

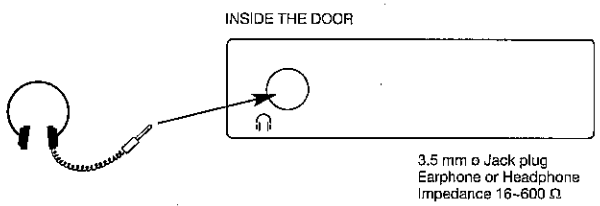


Ⓑ Time button ( )
Press the button to display the current time on the screen.
Note: that this function operates only if the station you are tuned to broadcasts a teletext signal.

Ⓒ Headphone jack
1. Press the MENU button ● to see the MAIN Menu.
2. Press the Cursor DOWN button ▼ to select «AUDIO ADJUSTMENTS» (blue box).
3. Press the MENU button ● to see the SOUND Menu.
4. Press the Cursor DOWN button ▼ twice to select HEADPHONES VOLUME.
5. Adjust the sound level with the Cursor LEFT/RIGHT buttons ◀/▶.
   Note: Balance and Equalizer adjustments cannot be set for headphones.
6. Press the TV button ● to close the SOUND Menu.

Be sure to insert the headphone plug all the way into the headphone jack.

Safety: In order to protect your ears, turn down the volume of the headphones before connecting them.



VCR Mode

SHARP VCR can be operated using this remote control.

Channel selectors (V CH Λ)
These buttons are used for changing channels and setting the timer.

Play button ▶
Press this button to start playback.

Record buttons ●
Press both buttons simultaneously to start recording. If the video cassette is protected against recording, it will be ejected.

Stop button ■
Press this button to stop playback or recording.

Operate button ⏻
Press this button to turn your VCR on.

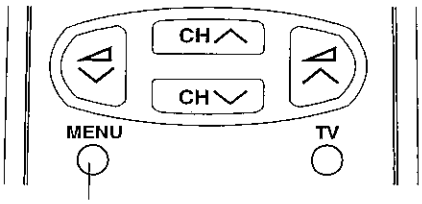
Fast forward/picture search forward ▶▶ and Rewind/picture search reverse ◀◀ buttons
Both these buttons have the following function:
Fast forwarding and Rewinding
① To move through the cassette faster, press the STOP button and then press the ▶▶ or ◀◀ button to fast forward or rewind the cassette.
② Press the STOP button to stop fast forward or rewind.
Picture Search
① During playback, press the ▶▶ button for forward picture search, or the ◀◀ button to reverse search.
② Press the PLAY button to resume normal playback.

For further details, please refer to operation manual of your VCR.

Menu Structures

This TV set has: a MAIN MENU with four basic menus which permit the entrance to the different functions of the TV.

These menus are figured out as indicated below:



MENU Button

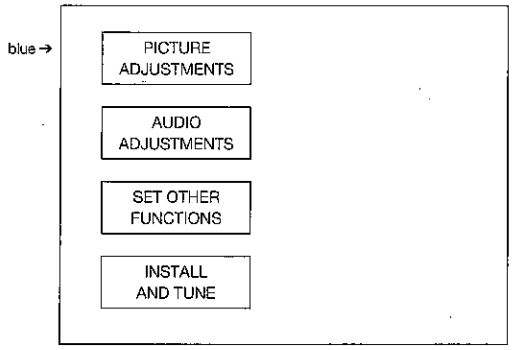
By pressing the MENU button:

MENU	OPTIONS	FUNCTIONS
PICTURE ADJUSTMENTS		CONTRAST / COLOUR / BRIGHTNESS / SHARPNESS / NORMALIZE
		TINT CONTROL
AUDIO ADJUSTMENTS		VOLUME: LOUDSPEAKERS / HEADPHONES
		VOLUME / BASS / TREBLE / BALANCE / NORMALIZE
		LOUDSPEAKERS / HEADPHONES (STEREO / MONO)
SET OTHER FUNCTIONS	LANGUAGE	ENGLISH, DEUTSCH, NEDERLANDS, FRANÇAIS, ITALIANO, ESPAÑOL, DANSK, SVENSKA, NORSK, SUOMI or PORTUGUÊS
	ON TIMER	TIME / SWITCH ON
	OFF TIMER	OFF / 120 Min. / 90 Min. / 60 Min. / 30 Min.
	DEMO	
INSTALL AND TUNE	CHANNEL	CH(Aerial) / CC (Cable)
	SEARCH	-/+ (Frequency tuning)
	F-TUNE	-/+ (FINE TUNE)
	MODE	TV / VCR / SKIP
	EDIT	EDIT PROGRAM / SORTING MODE / DELETE PROGRAM
	AUTO-TUN	AUTO INSTALLATION

Picture Adjustments

Picture quality (CONTRAST, COLOUR, BRIGHTNESS, SHARPNESS, TINT CONTROL and NORMALIZE are adjustable in this menu.

1. Press the MENU button ● to see the MAIN Menu.

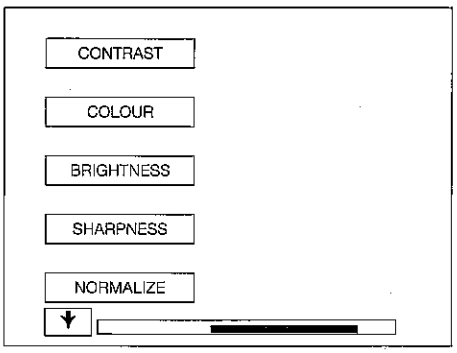


2. Press the Cursor DOWN button ▼ to select «PICTURE ADJUSTMENTS» (blue box).

3. Press the MENU button ● to see the PICTURE Menu.

4. Press the Cursor UP/DOWN buttons ▲/▼ to select an option from the list: CONTRAST, COLOUR, BRIGHTNESS, SHARPNESS or NORMAL.
   The selected item will appear on screen in a BLUE box.

5. Adjust the picture quality to your liking with the Cursor LEFT/RIGHT buttons ◄/►.



NORMALIZE menu

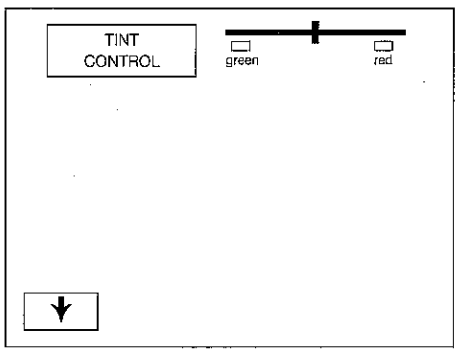
6.1.a. Press the MENU button ● button if you wish to normalize video levels (CONTRAST, COLOUR, BRIGHTNESS, SHARPNESS) to default factory settings.

Select TINT CONTROL to adjust your desired skin colour (COOL or WARM).

6.2.a. Press the Cursor UP/DOWN buttons ▲/▼ to select a parameter from the TINT CONTROL.

6.2.b. Press the Cursor LEFT/RIGHT buttons ◄/► to adjust picture quality to your liking.

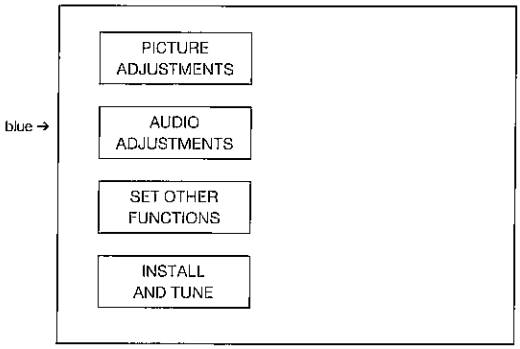
7. Press the TV button ● to close the PICTURE Menu.



Sound Setting Mode

Sound quality (MAIN VOLUME, HEADPHONES VOLUME, BALANCE, BASS, TREBLE, MODE and NORMALIZE) are adjustable in this mode.

1. Press the MENU button ● to see the MAIN Menu.



2. Press the Cursor DOWN button ▼ to select AUDIO ADJUSTMENTS.

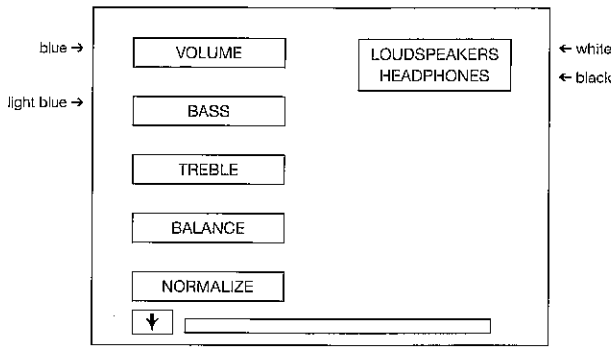
3. Press the MENU button ● to see the SOUND Menu.

4. Press the Cursor UP/DOWN button ▲/▼ to select an option from the list: VOLUME, BASS, TREBLE, BALANCE, NORMALIZE.

5. Adjust the levels using the Cursor LEFT/RIGHT ◄/► butons.
   Note: it is not possible to adjust balance for the headphones.

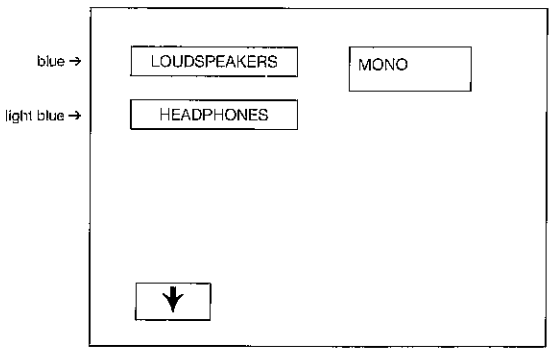
NORMALIZE menu

6.1.a. Press the MENU button ● if you wish to normalize audio levels to default factory settings.



6.2.a. Press the Cursor UP/DOWN buttons ▲/▼ to select: loudspeakers or headphones.

6.2.b. Press the Cursor LEFT/RIGHT buttons ◄/► to change the sound mode, same as indicated on page 9, chapter «Sound Mode Selector button».



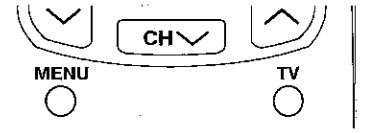
Sound Indicator: When the TV set is receiving a STEREO or BILINGUAL programme the Sound Indicator lights.

External source: When you are watching the TV-set through the EUROSCART or AV-1 terminals, the Sound Mode menu is not operative.

7. Press the TV button ● to close the SOUND Menu.

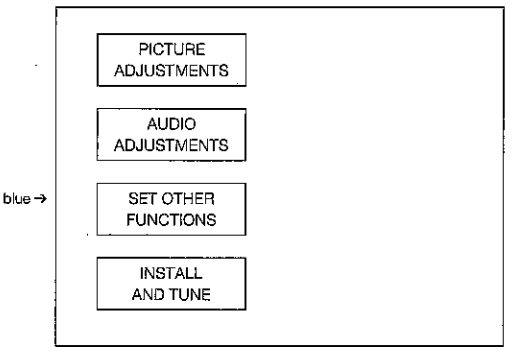
Features setting mode

In this mode you can select a LANGUAGE for screen menus, set the ON-TIMER and OFF-TIMER, and view all the functions implemented in your TV set demonstration.



1. Press the MENU button ● to see the MAIN Menu.

2. Press the Cursor UP button ▲ to select «SET OTHER FUNCTIONS».



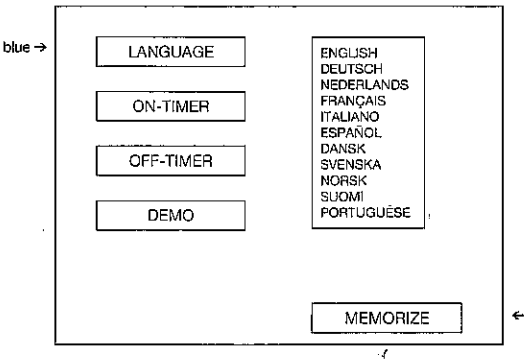
3. Press the MENU button ● to see the FEATURES Menu.

4. Press the Cursor UP/DOWN buttons ▲/▼ to select an option from the list:
   LANGUAGE, ON TIMER, OFF TIMER or DEMO.
   The selected item will appear on screen in a blue box.

5. Press the Cursor RIGHT button ▶ to open the menu from the selected item.

LANGUAGE

6.1.a. Press the Cursor UP/DOWN buttons ▲/▼ to select a language from the list: ENGLISH (ENGLISH), DEUTSCH (GERMAN), NEDERLANDS (DUTCH), FRANÇAIS (FRENCH), ITALIANO (ITALIAN), ESPAÑOL (SPANISH), DANSK (DANISH), SVENSKA (SWEDISH), NORSK (NORWEGIAN), SUOMI (FINNISH) or PORTUGUÊS (PORTUGUESE); for on-screen menus.

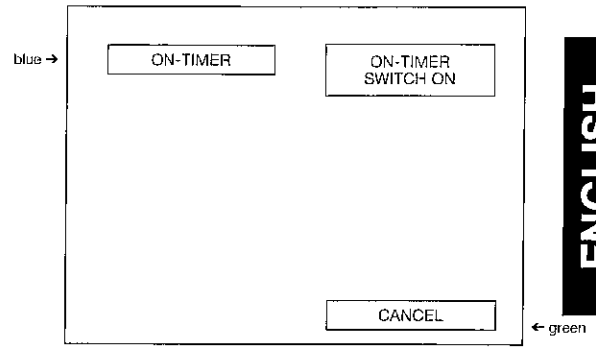


6.1.b. Press the GREEN button ● to memorize it.

7. Press the TV button ● to close the FEATURES Menu.

ON TIMER

The On-Timer is used to programme switching on the TV set during the 24 hours of the day.



6.2.a. Pressing the Cursor UP/DOWN buttons ▲/▼, select to adjust the real TIMER or the SWITCH ON.

6.2.b. To programme the real TIME:
In order to be able to run this function, it is essential to adjust the real time.

Automatic TIME adjustment: If a programme with teletext is being received, the real TIMER can be adjusted automatically with that signal's clock. (To synchronize Real-Timer, press Text/Mix button (▤/◪)).

*Important: If a signal via satellite is being received, or if correct time cannot be obtained, the time will have to be adjusted manually.

Manual TIME adjustment: To adjust the time manually, this should be done with the 0 to 9 digit buttons.

6.2.c. Adjusting the SWITCH ON. Once the Real Time has been adjusted, the SWITCH ON can be set with the 0 to 9 digit buttons.
The GREEN button is used to cancel the SWITCH ON function.

7. Press the TV button ● to close the FEATURES Menu.

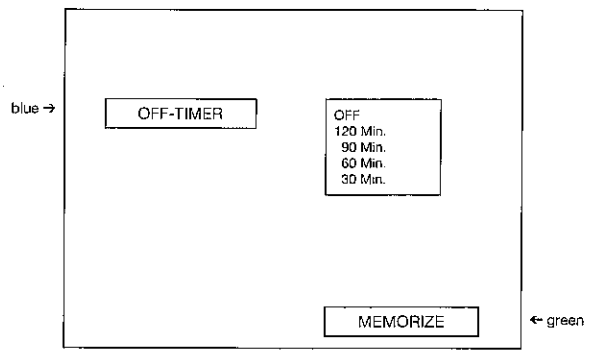
8. Press the Stand-by (⏻ I TV) button on the remote control to put the TV into Stand-by Mode.

* As a safety precaution, in the case of nobody being home when the television switches on automatically, the television will disconnect itself automatically after 120 minutes; if it is to continue to run, any button of the remote control functions should be pressed.

Note: In the event of a power cut, disconnection from the plug or television switch, all the data on the ON TIMER will be cancelled.

OFF TIMER

The OFF TIMER automatically switches the TV set to standby mode after a predetermined period (30, 60, 90 or 120 minutes).



6.3.a. Pressing the Cursor UP/DOWN buttons ▲/▼, select the desired period. Select OFF to disconnect off-timer.

6.3.b. Press the GREEN button to memorize it.

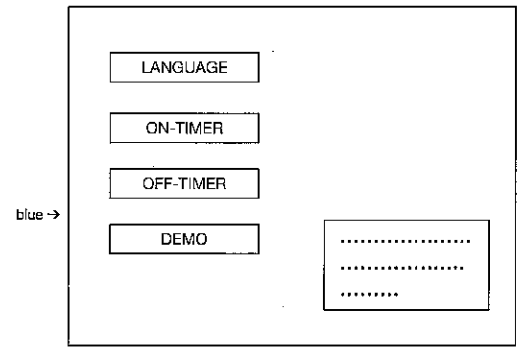
7. Press the TV button ● to close the FEATURES Menu.

Note: The OFF TIMER data will be cancelled if you turn off the TV by the Standby button (⏻ I TV) on the remote control or with the Main power button(O I) on the TV set.

Demo

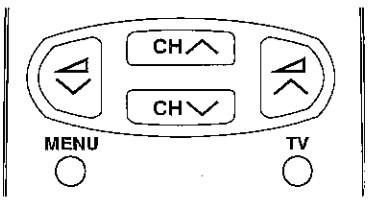
The demonstration function allows you to see all the menus implemented in this TV set.

1. Press the MENU button ● to see the MAIN Menu.
2. Press the Cursor UP button ▲ to select «SET OTHER FUNCTIONS».
3. Press the MENU button ● to see the FEATURES Menu.
4. Press the Cursor UP button ▲ to select DEMO.
5. Press the MENU button ● to begin the demonstration.
6. Press any button on remote control to exit this function when you wish.



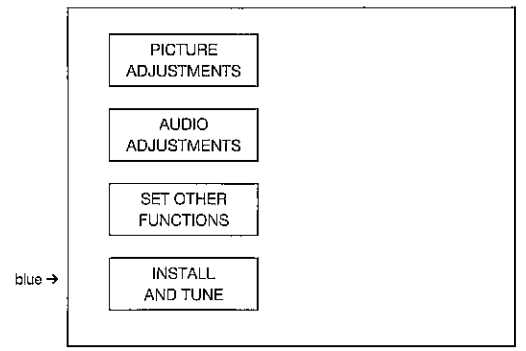
Auto Channel Preset with Sorting (ASS: Automatic Channel Sorting System)

This function allows you to repeat the AUTO INSTALLATION routine that was performed when the TV was first switched on. If you wish to repeat the AUTO INSTALLATION routine, proceed as follows:



1. Press the MENU button ● to see the MAIN Menu.

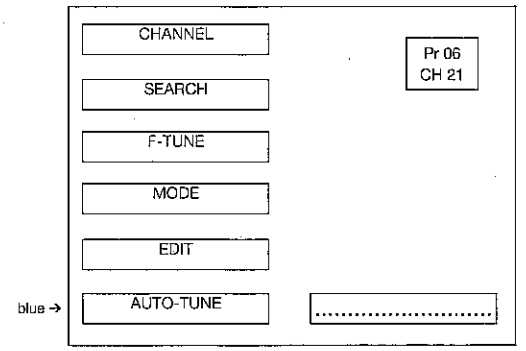
2. Press the Cursor UP button ▲ to select INSTALL AND TUNE.



3. Press the MENU button ● to see the TUNE Menu.

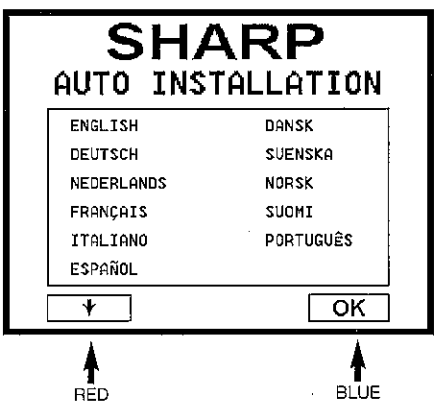
4. Press the Cursor UP button ▲ to select AUTO-TUNE.

5. Press the MENU button ● to start the AUTO INSTALLATION Menu.



6. Press the RED button to select the desired language (red box).

7. Press the CYAN button and follow the instructions on the screen.

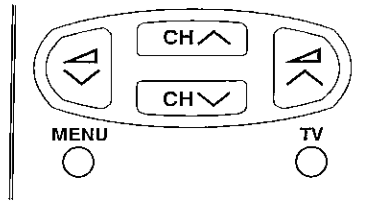


When the AUTOMATIC SEARCH has been completed, the "Stored programmes" menu will appear on screen.

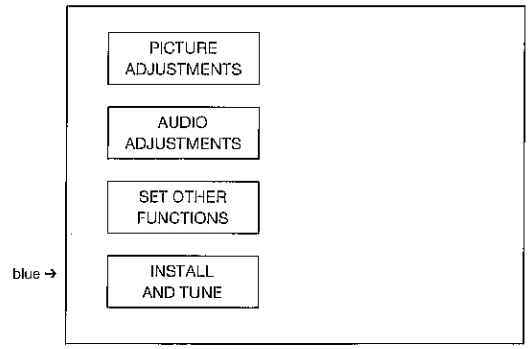
If you wish to rename the channels, or change the order, refer to the page 5, chapter **Stored programmes.**

Manual Channel Preset (PRESET USING REAL CHANNEL NUMBERS)

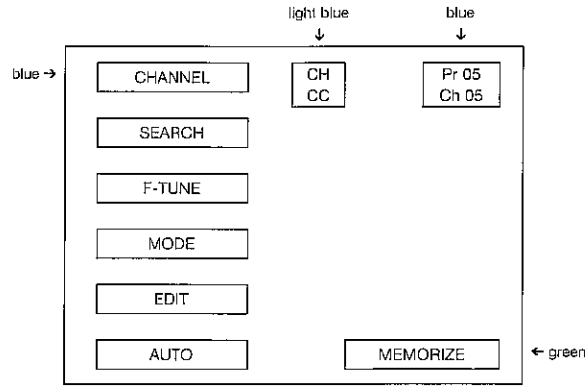
1. Select the programme channel number you want to preset with the 0-9 digit button.
2. Press the MENU button ● to see the Main Menu.



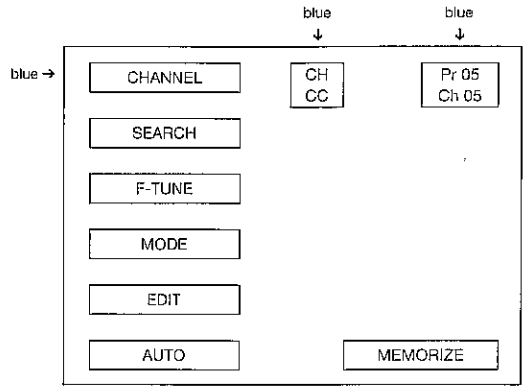
3. Press the Cursor UP button ▲ to select «INSTALL AND TUNE».



4. Press the MENU button ● to see the INSTALLATION Menu.

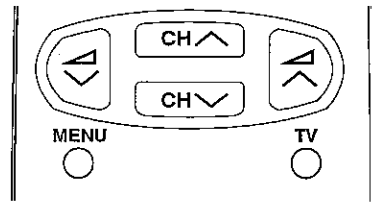


5. Press the Cursor RIGHT button ▶ to choose the CH/CC option.
6. Press the Cursor DOWN button ▼ to select Aerial (CH) or Cable (CC).
7. Press the real channel number you want to store with the 0-9 digit buttons.
8. Press green button to memorize.
9. Press the TV button ● to clear the on-screen display.
10. Repeat the above procedure for presetting other programme channels.

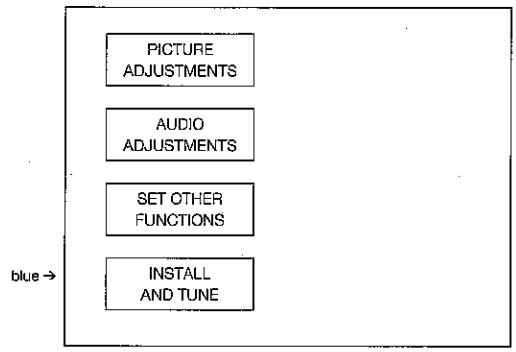


Manual Channel Preset (PRESET USING FREQUENCY TUNING)

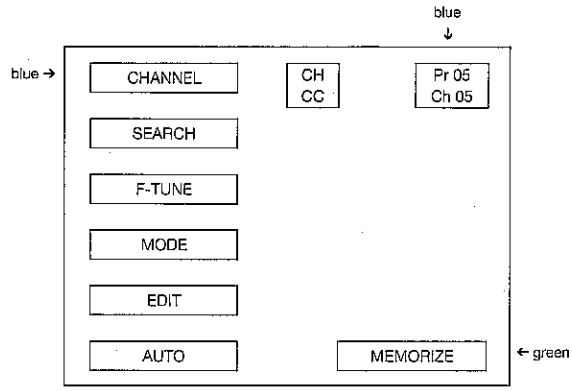
1. Select the programme channel numbre you want to preset with the 0-9 digit button.
2. Press the MENU button ● to see the Main Menu.



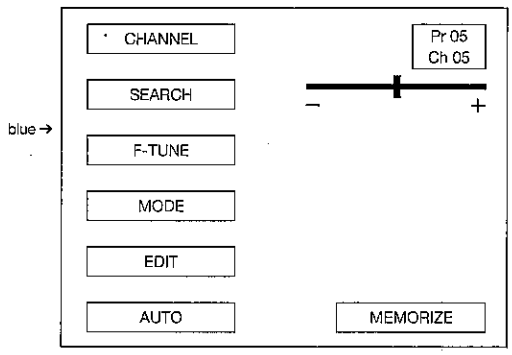
3. Press the Cursor UP button ▲ to select «INSTALL AND TUNE».



4. Press the MENU button ● to see the INSTALLATION Menu.



5. Press the Cursor RIGHT button ▶ to choose the CH/CC option.
6. Press the Cursor DOWN button ▼ to select Aerial (CH) or Cable (CC).
7. Press the Cursor LEFT button ◀ and select CHANNEL.
8. Press the Cursor DOWN button ▼ to select SEARCH.
9. Press the Cursor LEFT/RIGHT buttons ◀/▶ to tune between the existing channel and the previous/next one.
10. Press GREEN button to memorize.
11. Press the TV button ● to clear the on-screen display.
12. Repeat the above procedure for presenting other programme channels.



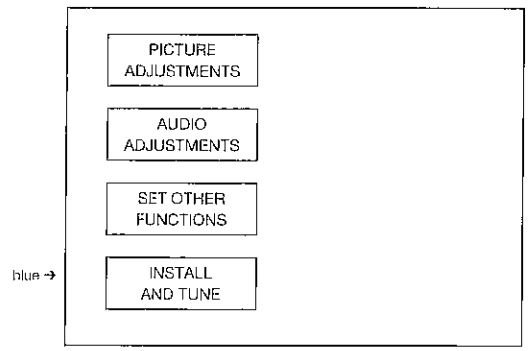
After preset has been performed

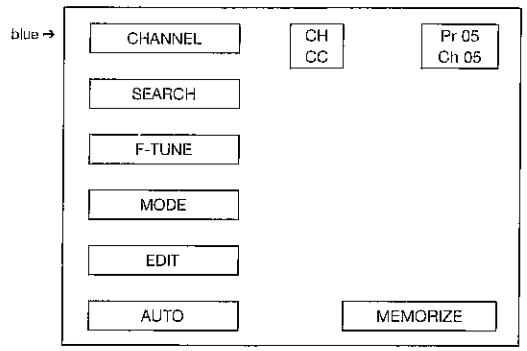
The following features are available for preset channels:

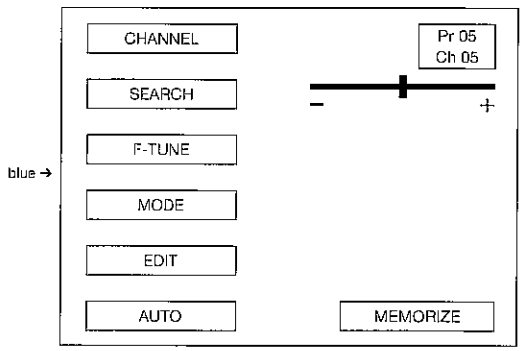
Ⓐ Fine Tuning

When a preset programme channel is not exactly tuned, you can fine tune the channel in this mode.

1. Select the programme channel number you want to tune using the 0 ~ 9 digit button or the channel selector (CH∨ / CH ∧) buttons.
2. Press the MENU button ● to see the MAIN Menu.
3. Press the Cursor UP button ▲ to select «INSTALL AND TUNE».
4. Press the MENU button ● to see the INSTALLATION Menu.
5. Press the Cursor DOWN button ▼ to select FINE TUNE.
6. Adjust the picture with the Cursor LEFT/RIGHT buttons ◄/► for the best picture quality.
7. Press GREEN button to memorize.
8. Press the TV button ● to clear the on-screen display.
9. Repeat the above procedure for other programme channels as required.







Ⓑ Mode

This feature allows you to select TV, VCR, SKIP. First follow the above steps 1, 2, 3 and 4. The INSTALLATION Menu will appear on screen.

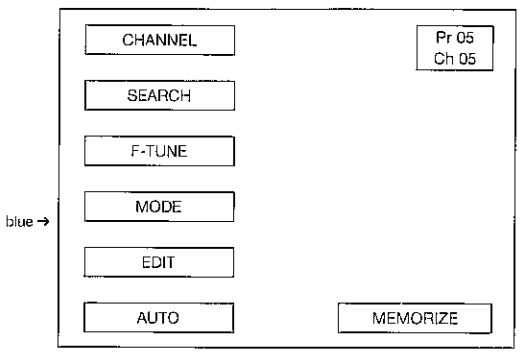
5. Press the Cursor DOWN button ▼ to select MODE.
6. Press the Cursor RIGHT button ► to open the MODE Menu.
7. With Cursor UP/DOWN buttons ▲/▼ select:

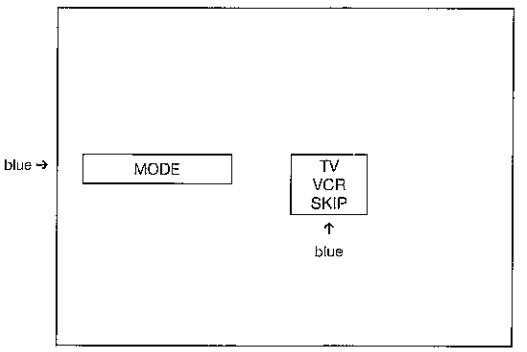
TV: If the TV signal is weak the image can shake. In this case put it in TV mode.

VCR: In some case, the upper part of the picture may be distorted when receiving signals from a VCR via the RF terminal on the TV set. This feature may improve the picture quality for these cases.

SKIP: Allows you to skip channels you do not want to view when using channels selector (CH∨ / CH ∧) buttons.

8. Press the GREEN button to memorize.
9. Press the TV button ● to clear the on-screen display.
10. Repeat the above procedures for other programme channels as required.

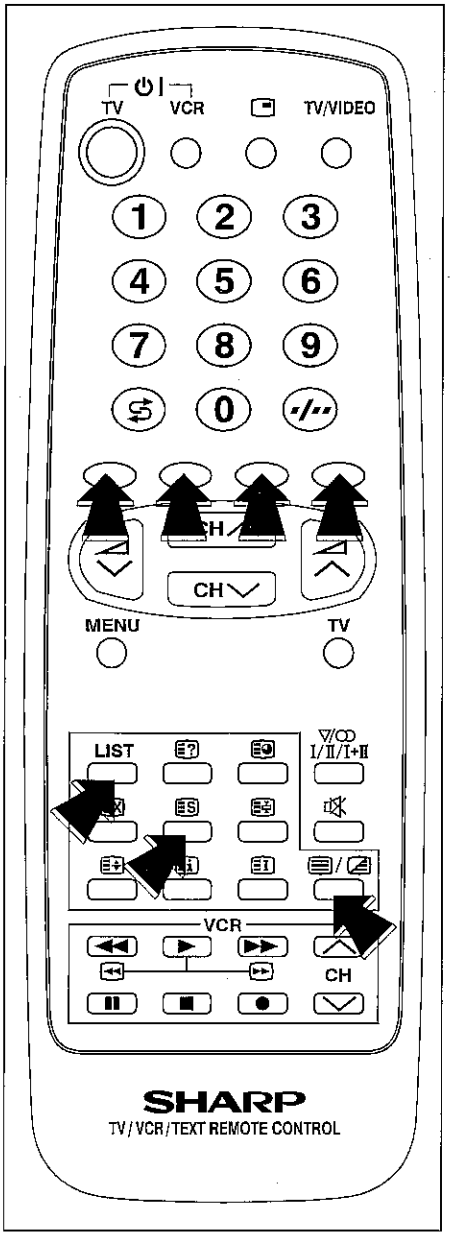




TELETEXT Mode

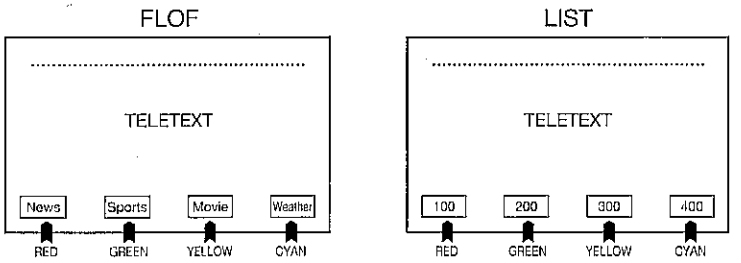
Ⓐ What is Teletext?

Teletext is an information service, organized like a magazine, which is provided by some television stations in addition to regular television broadcasting. Your television receives special Teletext signals broadcast by a TV station, processes the information and displays it graphically on the screen. News, weather and sports information, stock exchange prices, program previews and closed captioning for the deaf are among the many services available through Teletext.
Teletext information is organized much like a magazine: according to pages and sub-pages. The basic unit of displayed information is the page. A sub-page is one of a series of pages.
Teletext reception is controlled by using the remote control. Refer to the appropriate button descriptions for operation of the Teletext functions.



Ⓑ Teletext features

Depending on the TV programme, every Teletext page is transmitted using a different system. Your SHARP TV is adjusted to receive two Teletext systems, namely FLOF and LIST, which are automatically identified by the receiver. The user can easily identify them by the manner in which they appear on the screen.



Ⓒ To switch on and switch off the Teletext

Select a TV channel which is broadcasting the teletext programme you would like to watch. Then press the TEXT/MIX (▤/◪) button to select the Teletext mode.
Press the TV button to go out from Teletext mode.

Teletext Page memory List

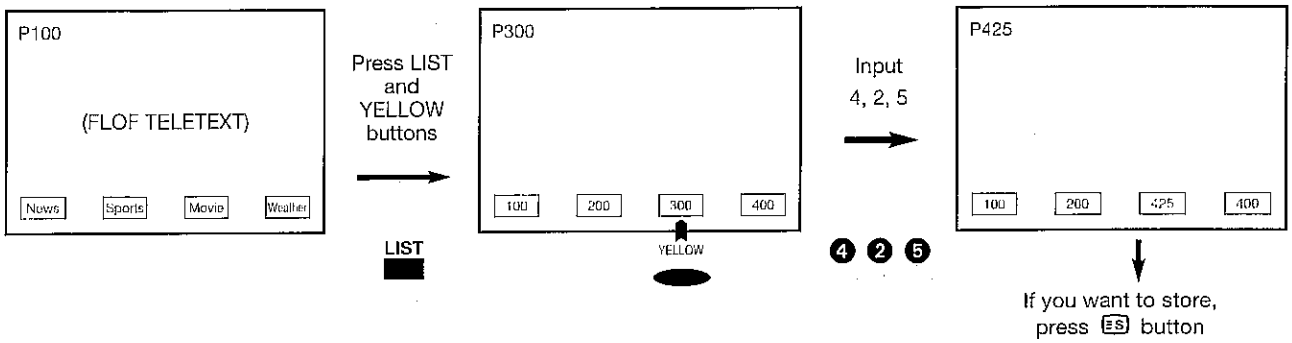
Ⓓ Operation...

LIST:

a) How to Operate Page Memory

Your TV has 40 teletext page number memories for fast recall of teletext information.
In programme positions 1 through 9, four teletext page numbers can be stored in each position; a total of 36 pages.
In programme positions 10 through 99, only one programme with 4 page numbers can be stored. If you try to store more than 4 page numbers in a programme position between 10 and 99, the previously stored page numbers will be erased.
Select the programme channel number into which you want to store teletext page numbers.

1. Press the TEXT/MIX (▤/◪) button to enter the teletext mode.
2. Press the LIST button to change from FLOF system to LIST mode.
3. Press a coloured button corresponding to the coloured brackets on the screen for page number storage.
4. Enter the teletext page number using the 0~9 digit buttons (enter three digits) or the channel selector (CH ∨/CH ∧) buttons.
5. Repeat steps 3. through 4. until the numbers for the desired pages have been entered.
6. Press the store ▤S button to memorize the page numbers you require. The ▤S▤ appears on the screen.
7. Press the TV button to exit the teletext mode.



b) Fast Page Selection
Select the appropriate programme channel.
Press the TEXT/MIX (▤/◪) button once to enter the teletext mode.
To recall a page number displayed in the coloured brackets, simply press the corresponding coloured button.

c) 0~9 digit buttons
Enter a desired page number with the 0~9 digit buttons. (To select P.100: press 1, 0, 0).

d) Page selector (UP/DOWN)
You can sequentially select page numbers by pressing the Cursor UP/DOWN buttons ▲/▼ or the (CH ∨ / CH ∧) buttons (channel selector buttons in the TV mode).

Other features common to the two systems

Ⓐ TEXT/MIX button (▤/◪)

In TV mode: Press the TEXT/MIX button to enter the teletext mode.
In teletext mode: Press the TEXT/MIX to superimpose a teletext broadcast onto the current TV programme screen.
In mixed mode: Press the button again to return to the normal teletext screen.

Ⓑ Top/Bottom/Full button

Each time you press the button, the upper/lower half of the teletext page is magnified and displayed on the screen.

Ⓒ Hold button

Any teletext page can be held on the screen by pressing the HOLD button.
Press the button again to cancel the hold mode.

Ⓓ Reveal button

Press this button to reveal hidden information such as the answer to a quiz.
Press the button again to hide the information.

Ⓔ Clock button

In TV mode: When a TV signal containing Teletext information is being received, when this key is pressed the current time is displayed in the top left corner of the screen.

In Teletext mode: If a Teletext page has hidden sub-pages or timed pages, these pages can be seen as follows:

1. Press the CLOCK button . "====" appears on the screen.
2. Enter the four figures corresponding to the required sub-page. For example 0021 is sub-page no. 21. In the case of timed pages, the four figures correspond to the time (hours and minutes) that the page appears.
3. Wait for the sub-page to appear.

   NOTE: While you are waiting you can use the cancel button ( ). In this way you can watch television while the system searches for the sub-page. the icon appears in the top left of the screen. When the sub-page has been found, the icon changes and the number of the sub-page requested appears.

   Press the TEXT/MIX button (/) to view the sub-page.

Ⓕ Cancel button

Use this key to cancel Teletext information and view the TV picture. In the top left of the screen the icon appears ( ). While Teletext is cancelled in this way, it is not possible to change channels.

If the information on the Teletext changes the icon will change and the number of the cancelled page or some other indication of special pages will appear.

To uncancel, press the TEXT/MIX button (/) and the whole Teletext page will appear.

NOTE: This button can be used in conjunction with the CLOCK button while you are waiting for sub-pages.

Ⓖ Reset button

Press the reset button to return back to index page and go out from Teletext mode.

Ⓗ LIST button

Pressing this button you force the teletext to LIST MODE. It means that row 24 (bottom row of TXT) will not have transmitter information, only the pages that user have previously stored in the memory. (More information on page 20 - Operation LIST-).

Pressing LIST button again we go out from LIST MODE and system is going to be identified again.

Ⓘ Index button

Press the index button to return back to index page.

21-pin Euro-SCART and 21-pin Audio/Video

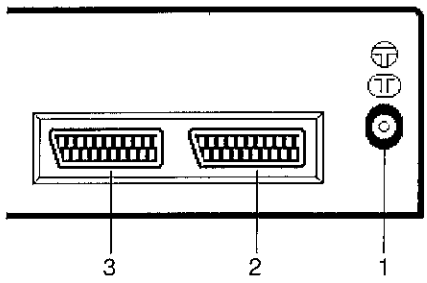
REAR TV

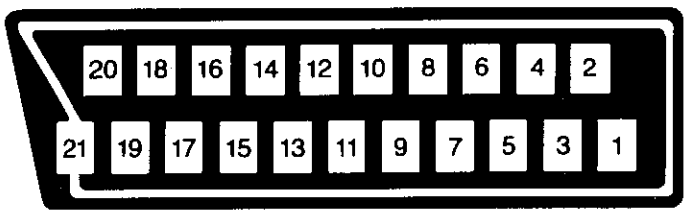
RF Input

1. Antenna terminal

21-pin In/Out

2. 21-pin Euro SCART (Full connect, RGB)
3. 21-pin Audio/Video (AV-1)





21-pin Euro-SCART (RGB)

1. Audio right output
2. Audio right input
3. Audio left output
4. Common earth for audio
5. Earth for blue
6. Audio left input
7. Blue input
8. Audio-video control
9. Earth for green
10. Not used
11. Green input
12. Not used
13. Earth for red
14. Not used
15. Red input
16. Red/Green/Blue control
17. Earth for video
18. Earth for Red/Green/Blue control
19. Video output
20. Video input
21. Plug shield

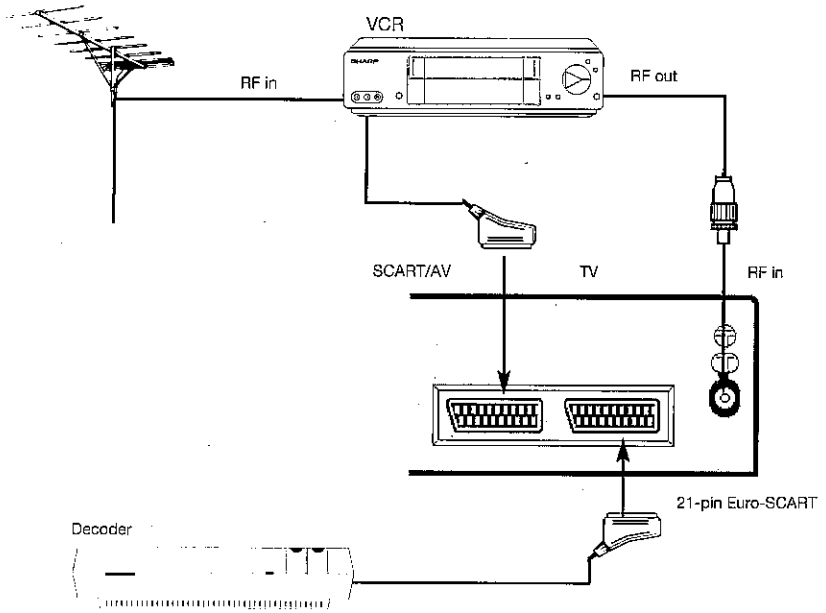
21-pin Audio/Video (AV-1)

1. Audio right output
2. Audio right input
3. Audio left output
4. Common earth for audio
5. Earth
6. Audio left input
7. Not used
8. Audio-video control
9. Earth
10. Not used
11. Not used
12. Not used
13. Earth
14. Not used
15. Not used
16. Not used
17. Earth for video
18. Earth
19. Video output
20. Video input
21. Plug shield

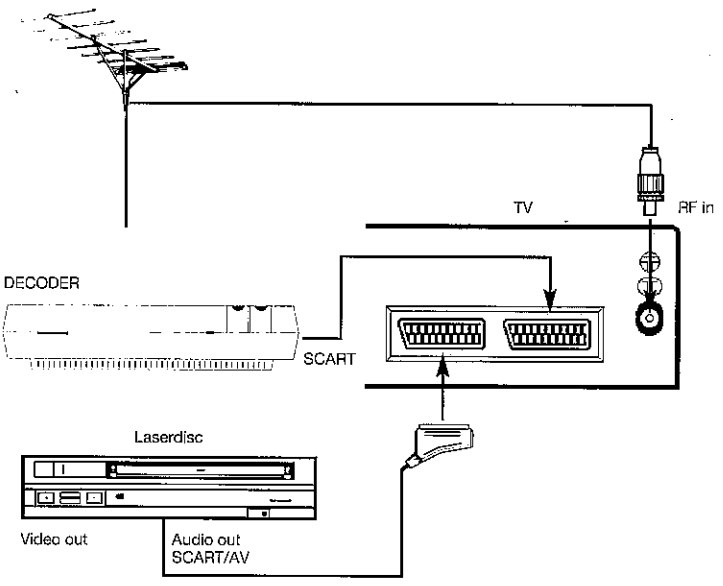
Typical connection (Videorecorder/Decoder/Laserdisc and TV) through the 21-pin Euro-SCART

Please refer to the operation manual of your VCR for details.

Typical connection (Videorecorder and TV) through the RF terminal



Typical connection (Disc, Decoder and TV) through the 21-pin Euro-SCART



Troubleshooting

The following conditions do not always denote trouble. Therefore, perform the checks described below before calling for service.
If the problem cannot be corrected by the use of this guide, pull the power plug out from the electrical outlet and call for service.

Quick Service Check List Problems / Possible Causes/Remedies	Try a new channel to check for possible station trouble	TV not plugged in Outlet power OFF	Main Power button of TV not ON	Antenna not connected to terminal at the back of the TV set	If outside antenna is used, check for broken wires	Check for local interference	Turn off using the Main Power button, then turn ON again after a minute	Adjust COLOUR control	Check batteries in the Remote Control	Try fine tuning to correct	Check if the Brightness or Contrast setting in the picture setting mode might be all the way to the minus side	Increase the volume
Remote control does not work		●	●				●		●			
Bars on screen					●	●						
Picture distorted	●				●					●		
Picture rolls vertically	●				●	●						
No colour	●			●	●			●		●		
Poor reception on some channels	●			●	●	●						
Picture weak	●			●	●			●		●		
Picture lines or streaks	●				●	●						
Picture ghosting	●			●	●	●						
Picture blurred	●				●					●		
Sound OK, picture poor	●			●	●	●		●		●	●	
Picture OK, sound poor	●					●						●
No picture or sound	●	●	●	●	●		●					

General Specifications for Television Receiver

Item: *IC Solid State Colour TV Receiver*

Models: ***70ES-03SN***

Chassis: *CA-10 Chassis (IC & Transistorised Chassis)*

1.	*Receiving Broadcast Standard*		*CCIR TV Standard system PAL B/G*
2.	*Receiving System*		*VHF: E 2 - E 12 CH* *UHF: E 21 - E 69 CH* *HYPERBAND: S 1 - S 41 CC*
3.	*Receiving System*	*Sound:* *Colour System:* *Field Frequency:*	*GERMAN STEREO (IGR/NICAM)* *PAL* *Pal 50/60 Hz Capability*
4.	*Power Source*		*220V-240V AC 50Hz*
5.	*Power Consumption at 240V AC 50Hz*		*125W*
6.	*Power Consumption at (Stand-by)*		*3 W*
7.	*Audio Output (mpo)*		*10+10 W*
8.	*Dimensions (approx.)*	*width:* *height:* *depth:*	*736 mm* *570 mm* *469 mm*
9.	*Viewing Area (diagonal measurement)*		*66 cm (28")*
10.	*Weight (approx.)*		*30,5 Kg*
11	*Internal speaker (Elliptic 2 pcs):*		*6,5x13 cm*
12	*Antenna Input Impedance*		*VHF/UHF 75 Ohm Unbalanced*
13.	*Safety*		*EN60065, CE - MARK*
14.	*EMC*		*EN55013, EN55020, CE - MARK*
15.	*Accessories & etc.*		
	a) User Instruction		*Yes*
	b) Remote Control		*Yes*
	c) Battery		*2 pcs.*

16. *Other Features:*
    - *a) Auto Installation System*
    - *b) ASS function (Auto Channel Sorting System)*
    - *c) 99 Channel Programming System*
    - *d) Cable and Hyperband*
    - *e) Teletext*
    - *f) OSD System (On Screen Display)*
    - *g) Tint Control*
    - *h) Stereo (IGR/NICAM)*
    - *i) ON-OFF Timer*
    - *j) 21pin Euro-SCART Connector (RGB) (EN50049-1)*
    - *k) 21pin Audio/Video Connector (AV-1)*
    - *l) Headphone Terminal*
    - *m) Blue Back Noise Mute Function*

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